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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/892,651	06/28/2001	Izuru Nakai	P21198	2034

7055 7590 09/23/2002

GREENBLUM & BERNSTEIN, P.L.C.
1941 ROLAND CLARKE PLACE
RESTON, VA 20191

EXAMINER

TRAN, LEN

ART UNIT	PAPER NUMBER
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1725

DATE MAILED: 09/23/2002

4

Please find below and/or attached an Office communication concerning this application or proceeding.

NS 4

Office Action Summary

Application No.

09/892,651

Applicant(s)

NAKAI ET AL.

Examiner

Len Tran

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 June 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5, 7-11 is/are rejected.
- 7) ☒ Claim(s) 6 and 12 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 112

2. Claims 4 and 12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As to both claims 4 and 12, the recitation "a pair of reflection mirrors on either side of the prism" is unclear, since the figures show that the pair of reflection mirrors are disposed one of each side of the prism. Clarification/correction is required.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any

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evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 1-3, and 7-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant admitted prior art (figure 7), and further in view of Welch et al (US 5,914,978).

As to claims 1,2, and 7-11, Applicant admitted prior art, figure 7, discloses a laser apparatus comprising of a laser oscillator, an f (theta) lens for converging the emitted laser light onto a workpiece, a galvanometer.

However, applicant admitted prior art fails to show a wavelength selector, including a diffraction grating, a polarizer, interposed between the laser oscillator and the f (theta) lens.

Welch et al disclose a wavelength selector, including a diffraction grating, polarizer, and light emitted through a prism (figure 23, figure 12) for the purpose of singling out a desired wavelength.

Therefore, it would have been obvious to one of ordinary skill in the art at the time applicant's invention was made to provide a wavelength selector as taught by Welch et al, in Applicant's admitted prior art in order to achieve the desired wavelength.

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As to claim 3, the limitation is a process limitation. However, the apparatus of Welch et al is capable of performing the claimed process of transmitting the laser a plurality of times through the prism.

6. Claim 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant admitted prior art (figure 7), and further in view of Welch et al (US 5,914,978), in view of Scheps et al (US 5,528,612).

Applicant admitted prior art and Welch et al disclose the claimed invention above in paragraph 5, but fail to teach a prism being in between the two reflecting mirrors.

However, Scheps et al disclose a prism arranged in between two reflecting mirrors (figure 1) to provide a spatially separate path for each of the wavelengths and to determine the specific laser wavelengths produced simultaneously by the laser.

Therefore, it would have been obvious to one of ordinary skill in the art at the time applicant's invention was made to provide a prism located between reflecting mirrors as taught by Scheps et al, in Applicant's admitted prior art and Welch et al in order to separate the wavelengths.

In addition, it would have been obvious to one of ordinary skill in the art at the time applicant's invention was made to provide a plurality of prism, since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. St. Regis paper Co. v. Bemis Co., 193 USPQ 8.

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Allowable Subject Matter

7. Claim 6 and 12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The prior arts of record fail to teach plurality of prisms disposed between a pair of opposed reflection mirrors and wherein the lasers are emitted through the prism a plurality of times using the reflection mirrors.

Inquiry


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Len Tran whose telephone number is (703)605-1175. The examiner can normally be reached on M-F, 8:30 - 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tom Dunn can be reached on 703-308-3318. The fax phone numbers for the organization where this application or proceeding is assigned are (703)305-3602 for regular communications and (703)305-3602 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0661.

Len Tran
Examiner
Art Unit 1725

LT
September 13, 2002


M. ALEXANDRA ELVE
PRIMARY EXAMINER